- (d) The temperature of each container must be maintained, under intended operating conditions, to prevent the pressure in the container from—
- (1) Falling below that necessary to provide an adequate rate of discharge; or
- (2) Rising high enough to cause premature discharge.
- (e) If a pyrotechnic capsule is used to discharge the extinguishing agent, each container must be installed so that temperature conditions will not cause hazardous deterioration of the pyrotechnic capsule.

[Amdt. 23–34, 52 FR 1833, Jan. 15, 1987; 52 FR 34745, Sept. 14, 1987]

# §23.1201 Fire extinguishing system materials.

For commuter category airplanes, the following apply:

- (a) No material in any fire extinguishing system may react chemically with any extinguishing agent so as to create a hazard.
- (b) Each system component in an engine compartment must be fireproof.

[Amdt. 23–34, 52 FR 1833, Jan. 15, 1987; 52 FR 7262, Mar. 9, 1987]

### §23.1203 Fire detector system.

- (a) There must be means that ensure the prompt detection of a fire in—
  - (1) An engine compartment of—
- (i) Multiengine turbine powered airplanes;
- (ii) Multiengine reciprocating engine powered airplanes incorporating turbochargers;
- (iii) Airplanes with engine(s) located where they are not readily visible from the cockpit; and
- (iv) All commuter category airplanes.
- (2) The auxiliary power unit compartment of any airplane incorporating an auxiliary power unit.
- (b) Each fire detector must be constructed and installed to withstand the vibration, inertia, and other loads to which it may be subjected in operation.
- (c) No fire detector may be affected by any oil, water, other fluids, or fumes that might be present.
- (d) There must be means to allow the crew to check, in flight, the functioning of each fire detector electric circuit.

(e) Wiring and other components of each fire detector system in a designated fire zone must be at least fire resistant.

[Amdt. 23–18, 42 FR 15042, Mar. 17, 1977, as amended by Amdt. 23–34, 52 FR 1833, Jan. 15, 1987; Amdt. 23–43, 58 FR 18975, Apr. 9, 1993; Amdt. 23–51, 61 FR 5138, Feb. 9, 1996]

#### Subpart F—Equipment

**GENERAL** 

#### §23.1301 Function and installation.

Each item of installed equipment must—

- (a) Be of a kind and design appropriate to its intended function.
- (b) Be labeled as to its identification, function, or operating limitations, or any applicable combination of these factors;
- (c) Be installed according to limitations specified for that equipment; and (d) Function properly when installed.

[Amdt. 23–20, 42 FR 36968, July 18, 1977]

## § 23.1303 Flight and navigation instruments.

The following are the minimum required flight and navigation instruments:

- (a) An airspeed indicator.
- (b) An altimeter.
- (c) A direction indicator (non-stabilized magnetic compass).
- (d) For reciprocating engine-powered airplanes of more than 6,000 pounds maximum weight and turbine engine powered airplanes, a free air temperature indicator or an air-temperature indicator which provides indications that are convertible to free-air.
  - (e) A speed warning device for-
- (1) Turbine engine powered airplanes; and
- (2) Other airplanes for which VMO/MMO and VD/MD are established under §\$23.335(b)(4) and 23.1505(c) if VMO/MMO is greater than 0.8 VD/MD.

The speed warning device must give effective aural warning (differing distinctively from aural warnings used for other purposes) to the pilots whenever the speed exceeds VMO plus 6 knots or MMO+0.01. The upper limit of the production tolerance for the warning device may not exceed the prescribed warning speed. The lower limit of the